Who Do You Think You Are?

The Genealogy of an Organization

U.S. Army Space and Missile Defense Command/Army Forces Strategic Command[1]

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As the widely popular television shows have shown, we are a product of our environment and those of our ancestors. This could also be said for organizations. Who or What is USASMDC/ARSTRAT? The command can trace its history to a small 24-person office on Redstone Arsenal established in October 1957 – the Redstone Anti-Missile Missile Systems Office (RAMMSO). In the intervening years, it has grown, gaining missions and personnel to become a Major Command and subsequently an Army Service Component Command with units in 13 states and six foreign countries.

Within months the RAMMSO became the Nike-Zeus Project Office, perpetuating the heritage of the Nike series of air defense missiles. During the next seven years, Nike-Zeus developed and demonstrated a ballistic missile defense (BMD) system to protect the nation from the evolving threat. Assigned the highest national priority by the National Security Council, the Nike Zeus united a long-range nuclear tipped Zeus interceptor with a series of specialized radars (Acquisition, Discrimination, Target Tracking and Missile Tracking) which would be deployed in 70 batteries across the nation. Even as they proved the feasibility of intercepting an intercontinental ballistic missile (ICBM), with the first intercept in December 1962, the Secretary of Defense assigned a new requirement – an anti-satellite capability. They achieved this mission with Project MUDFLAP and a successful intercept of an Agena D satellite in May 1963.

Despite these successes, it was determined that the Nike-Zeus system was neither technologically feasible nor cost effective at that time and a change came in 1964. The anti-ballistic missile (ABM) program however retained its top priority and the system manager. The new Nike-X program was designed to address the threat of the 1970s. Through a series of studies, projects and tests, Nike-X improved the Zeus interceptor, and developed new high-speed, high-capacity computers and radars as well as a new short-range nuclear interceptor. At the same time, Nike-X was assigned responsibility for the Kwajalein Test Range, based upon the significant role that it played in the Army's ABM research and development effort. During this phase the Nike-X devised a new ABM system composed of a long-range Spartan, a short-range Sprint and two radars the Multifunction Array Radar and the Missile Site Radar. Studies conducted in 1966 found that "Nike-X would add to U.S. deterrence and provide significant reduction in fatalities in the event deterrence fails."

The year 1967 would be a turning point in the ABM program. In November 1966, Secretary of Defense Robert McNamara announced that the Soviet Union had deployed an ABM system around Moscow. In 1967 at the Glassboro Summit they refused to discontinue this program. Also in 1967, the threat posed by China was renewed as the Chinese exploded their first thermonuclear devise and launched a nuclear tipped missile. The American response came in September 1967, when McNamara announced the decision to deploy a light ABM system called Sentinel.

To implement this decision the Nike-X Project Office became the Sentinel Systems Command

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(SENSCOM) in November 1967. The Sentinel deployment had two goals to defend urban/industrial areas against possible ICBM attacks by China and a possible accidental launch by any power. It also included an option to defend the Air Force's MINUTEMAN sites. The Army and the SENSCOM were given 54 months to reorient the program from research and development to production and deployment. An initial deployment consisted of six Perimeter Acquisition Radars, 17 Missile Site Radars, 480 Spartan and 220 Sprint silo-launched interceptors at sites across the nation from Boston to San Francisco and Oahu. Given the political environment – opposition to the war in Vietnam and to the concept of nuclear weapons–this deployment plan was not well received.

With the inauguration of President Richard Nixon in January 1969, the deployment was halted as the President ordered a review of all strategic offensive and defensive priorities. In March, President Nixon announced a new program the Safeguard. Safeguard reoriented the ABM program based upon three priorities (1) "to protect land-based retaliatory forces against a direct attack by the Soviet Union"; (2) to provide a "defense of the American people against the kind of nuclear attack which Communist China is likely to mount within the decade"; and (3) to protect "against the possibility of accidental attacks from any source."

Now known as the Safeguard Systems Command (SAFSCOM), the command was charged to deploy this new BMD system with a first site operational within the original 54-month deadline. Ultimately ten sites were identified across the country, but construction would only begin at two sites – near Grand Forks AFB, ND and Malmstrom AFB, Mon. Again outside forces would come into play. Even as the construction proceeded, the United States and the Soviet Union conducted the Strategic Arms Limitation Talks that produced the ABM Treaty. This agreement limited both nations to two ABM sites – one near the national capital and the other near an ICBM site.[2] As a result, the Malmstrom effort halted in 1972. The program however proceeded in North Dakota. Officially designated the Stanley R. Mickelson Safeguard Complex, this site achieved full operational capability in September 1975. Thus the command deployed the western world's first ABM system. The system, however, was short-lived. Despite Defense Department arguments to the contrary, the FY 1976/7T Appropriations Bill provided that funds for the ABM facility were to be used for the "expeditious termination and deactivation of all operation of that facility."[3]

Even as work progressed on the Safeguard deployment, the command was assigned a new mission to develop a next generation system known as Hardsite Defense a prototype demonstration program. Soon thereafter, in May 1974, the Secretary of the Army realigned all BMD efforts under one organization – the Ballistic Missile Defense Organization. The SAFSCOM became the Ballistic Missile Defense Systems Command (BMDSCOM) and a Ballistic Missile Defense Advanced Technology Center (BMDATC), replaced the Army's Ballistic Missile Defense Agency. The BMDCSOM would oversee the development of the Site Defense and later a new deployment concept the Low Altitude Defense/Sentry designed to support the mobile MX program. At the same time the BMDATC/BMDSCOM would explore future technologies, within the boundaries of the 1974 Congressional ban on prototyping that limited research and development to the subsystem and component levels. It was during this phase that the command began to explore non-nuclear options – kinetic kill technology and directed energy weapons to include lasers and a neutral particle beam. The Homing Overlay and the Flexible Lightweight Agile Guided Experiments would effectively demonstrate the feasibility of "hitting a bullet with a bullet."

1. Emblem used by the Nike-Zeus Project Office.
2. The Nike-X Project Office was created in 1964
3. The Sentinel stands guard to protect the nation.
4. Adopted in 1976, the Roman Sentinel Safeguards the nation…. This shoulder sleeve insignia was worn by Soldiers assigned to the command until 1998.
5. This logo was used during the 1970s.
6. This distinctive unit insignia illustrates the command's mission to protect the nation from threats coming from space. The text, in English, reads They Shall Not Pass.
7. Updating an earlier logo, this design illustrates the two aspects of the command's mission – the satellite for space and two interceptors in accordance with the new strategy.
8. This shoulder sleeve insignia symbolizing freedom and constant vigilance was adopted by the USASMDC in February 1998.
9. The current logo represents both aspects of the command – its role as an Army Command and as an Army Service Component Command to U.S. Strategic Command.

In March 1983, President Ronald Reagan announced a new national security policy, the Strategic Defense Initiative, which sought to eliminate the threat posed by nuclear weapons. The Army's years of experience provided the foundation for this multi-service effort. In 1985 a newly merged BMDSCOM and BMDATC became the U.S. Army Strategic Defense Command (SDC). Of the twelve components to the "*Star Wars*" program, the SDC managed or contributed to nine. These included direct oversight of the Exoatmospheric Re-entry Vehicle Interceptor Subsystem, the High Endoatmospheric Interceptor (HEDI), the Ground Based Radar (GBR), the Airborne Optical Adjunct, the Ground Based Laser, and the Ground-based Surveillance and Tracking System (GSTS) and contributions to the Space Based Laser, the Neutral Particle Beam and the Battle Management Command, Control and Communications.

As these programs evolved, in 1985 the command began to explore the theater implications for missile defense. Three years later a joint program was initiated with Israel to develop the Arrow. Finally in 1991, all theater missile defense (TMD) functions would be assigned to SDC. As in the Nike-Zeus era, anti-satellite applications were recognized and ASAT programs developed or were affiliated with the command. Finally during this era, the Secretary of the Army Michael Stone directed that the High Energy Laser Systems Test Facility be transferred to SDC to centralize high energy laser research within one organization.

Concurrent with these developments, the Army also began to explore the potential applications of space and space assets to support operations. An initial planning group, in 1986, became the Army Space Agency, "the foundation of the Army's operational capability in space" and a component of the newly formed U.S. Space Command. They provided the Army input with regard to space support to ground forces and the strategic defense planning process. Following a 1988 reorganization, they became the Army Space Command (ARSPACE). In addition to the planning and coordination missions of its predecessors, the ARSPACE was responsible for the Consolidated Space Operations Center Detachment, the Army Astronaut Detachment, and three Regional Space Support Centers. The Defense Satellite Communications System platform and payload control missions further extended its operational role.

In 1991, Operation Desert Storm saw the direct application of both missile defense and space assets. The small lightweight global positioning system receiver (SLGR) for example allowed Soldiers to navigate the desert while the modified Patriots intercepted the Iraqi Scud missiles. Lessons learned from the Gulf War led to the creation of the Army Space Support Teams (ARSSTs) and the Joint Tactical Ground Stations (JTAGS) as well as a greater emphasis on theater missile defense.

At the same time, President George H.W. Bush reoriented the SDI to establish a new missile defense system – Global Protection Against Limited Strikes (GPALS), which would address limited attacks of up to 200 warheads, with particular attention given to the boost-phase capabilities of the Brilliant Pebbles program. In keeping with efforts to streamline the acquisition system, the Program Executive Office GPALS was established in 1992.[4] It consolidated project offices from SDC with the PEO Air Defense (Corps SAM and Patriot) from the U.S. Army Missile Command. Under the agreement, the Ground Based Interceptor, HEDI, GBR, GSTS, BMC3, Adjunct Sensors, and Testbed Product Office and TMD programs such as the Extended Range Interceptor, the Theater High Altitude Area Defense and the Arrow transferred to the new PEO.

A separate study conducted after the Gulf War, reassessed the Army's organization for space. After reviewing several options, officials opted to merge ARSPACE and SDC, creating the U.S. Army Space and Strategic Defense Command (SSDC) in 1992, with the ARSPACE as a subordinate command. The SSDC continued to perform research and development for strategic and theater missile defense technologies and anti-satellite efforts in directed and kinetic energy. The new organization became the Army's focal point for space and missile defense.

Given this guidance, the SSDC continued to provide research and development support to the Strategic Defense Initiative Organization and matrix support to the PEO GPALS, and retained responsibility for Kwajalein and HELSTF. The command however continued to evolve and new initiatives were added to the mission set. In 1994, SSDC was named the operational advocate for TMD. In 1996, under an agreement with Israel, the SSDC began to develop a Tactical High Energy Laser. The Battle Integration Center stood up to combine the four elements of TMD to better test concepts and train soldiers. And, the command began to explore new applications for its technologies, to include the study of aerostats as sensor platforms, an initiative which would lead to the 2007 decision to make USASMDC/ARSTRAT the Army proponent for high altitude.

In addition, as the focal point for space, the SSDC gained new responsibilities as army officials decided to consolidate Army space programs into one entity. This process began in 1992 with the transfer of MILSTAR network management and control. Then in 1993, the Army Space Technology Research Office, which managed the space R&D programs, merged and became the Space Applications Technology Directorate. One year later in 1994, the Army Space Program Office transferred to SSDC bringing with it the Tactical Exploitation of National Capabilities Program. At the same time the command began to explore ways to better provide space support to the warfighter. In addition to the development of ARSSTs and JTAGS units, the MILSATCON Directorate was converted to the 1st Satellite Control Battalion.

In 1996, the SSDC withstood efforts to merge with another command and was instead designated a stand-alone Army Component Command by the Vice Chief of Staff of the Army. General Ronald Griffiths based his decision upon the fact that SSDC carried out "responsibilities in scope and magnitude unlike other Army organizations." One year later, the command achieved a new milestone as it was elevated to a status of Major Army Command and subsequently renamed the U.S. Army Space and Missile Defense Command (USASMDC). The General Order identified three specific areas for the command – the Army's specified proponent for space and National Missile Defense and the overall Army integrating command for TMD. As established in agreement with the U.S. Army Training and Doctrine Command, the USASMDC now assumed responsibility for determining space requirements and leading the integration of DTLOMS solutions across the Army and within appropriate joint agencies. This agreement also led to the establishment of the Space and Missile Defense Battle Lab, the only battle lab outside TRADOC, to plan and conduct space and missile defense warfighting experiments. In a concurrent effort, in 1999 the USASMDC stood up the 1st Space Battalion "to institutionalize space within the Army,"[5] followed in 2001 by the Colorado Army National Guard 193rd Space Battalion and finally the 1st Space Brigade in 2003.

Essentially, the command ensured that Army warfighters have (1) access to space assets and the products they provide to win decisively with minimum casualties; and (2) effective missile defense to protect the nation as well as deployed U.S. forces and those of its allies. To that end, as technologies developed programs transitioned to the PEO. As the Army was designated the lead service for land-based NMD, the NMD TRADOC System Manager was chartered. And when new missions were assigned to the U.S. Space Command, as the Army Service Component Command USASSDC assumed new assignments such as Computer Network Attack/Computer Network Defense and Joint Blue Force Situational Awareness.

The year 2002 marks another milestone in the command's evolution. Two significant events in that year would shape the command's missions and functions. In June 2002, the United States formally withdrew from the ABM Treaty. In his announcement, President George W. Bush observed "we no longer live in the Cold War world for which the ABM Treaty was designed." He added his commitment to deploying a missile defense system as soon as possible to protect the American people and our deployed forces. While much rested with the Missile Defense Agency, as the Army proponent, the USASMDC proceeded with the reactivation and transfer of Fort Greely, Alaska to implement the Ground-based Midcourse Defense (GMD) Testbed, and stood up the 100th Missile Defense Brigade (GMD) in October 2003 and the 49th Missile Defense Battalion (GMD) (January 2004). Ultimately, when the need arose in 2006, the command was prepared to defend the nation.

The final link in the command's genealogy can also be traced to 2002 and the reorganization which transferred U.S. Space Command missions to a new U.S. Strategic Command (USSTRATCOM). As part of this realignment, the USASMDC became the ASCC to USSTRATCOM and as such became the Army Forces Strategic Command or USASMDC/ARSTRAT.[6] Its missions are in many ways tied to the USSTRATCOM. And a significant change came in 2003, when the Unified Command Plan Change 2, signed by President George W. Bush, assigned global strike, information operations, space, C4ISR and integrated missile defense to the USSTRATCOM. Based upon this relationship, the command, for example, has assumed the MASINT AGI mission and more recently in 2009 was named the Interim Army Forces Cyber Command, pending the establishment of a separate fully operational command.

Throughout its history, the USASMDC/ARSTRAT has evolved to meet the needs of our nation, warfighters and allies. It has traditionally held a unique role as the research and developer, the tester, the trainer and the operator. Today the USASMDC/ARSTRAT continues this tradition with its three core tasks (1) "Providing trained and ready space and missile defense forces and capabilities to the component commands and in support of the warfighter;" (2) "Building future space and missile defense forces"; and, (3) "Researching, testing, and integrating space, missile defense, high altitude, directed energy, and other related technologies."[7] And ultimately, USASMDC/ARSTRAT remains on the cutting edge providing the most up to date missile defense and space products and services, and most recently returning the Army to space with the launch of SMDC-ONE.

Footnotes

1 Due to space restrictions, it is not possible to cover al of the programs and missions that can be traced to the command and its dedicated workforce. This paper does, however, try to explain the evolution of the whys behind the name changes and the influence of outside forces upon an organization.

2 The ABM Treaty also specified the number of interceptors and launchers and the number and types of radars allowed. A protocol added to the treaty in 1974, limited each nation to one ABM site and further reduced the number of launchers.

3 Members of Congress reasoned that the costs of operating the system, combined with the ABM Treaty limitations and the Soviet development of MIRVed missiles, rendered the benefits from the Safeguard negligible. The Perimeter Acquisition Radar though was not affected. The benefits to the nation's early warning system and deep space tracking were recognized and the PAR transferred to the Air Force in 1977.

4 In subsequent years, the PEO GPALS was renamed the PEO Missile Defense (1993), PEO Air and Missile Defense (1996), PEO Air, Space and Missile Defense (2003) and is now the PEO Missiles and Space (2005). The PEO is now affiliated with the Aviation and Missile Life Cycle Management Command.

5 Comments by LTG John Costello, USASMDC Commander, 15 December 1999.

6 Although generally accepted, with new insignia, etc., this name change was not formalized until October 2006 and General Order 37. The ARSTRAT designation was selected to correspond with the command's service counterparts in USSTRATCOM.

7 USASMDC/ARSTRAT Vision, Commanding General's Corner, USASMDC/ARSTRAT Commandnet, http://www.smdc.army.mil/2008/Vision.asp#CORE, accessed 18 February 2011.